

REMARKS

In response to the Final Office Action dated 10 April 2003, please amend the application as indicated. Reconsideration and reevaluation of the claims, as amended, is respectfully requested.

5 The Owen '321 Patent discloses a liner 13 having an annular body portion 31 that expands to engage a casing 21. Col. 3, lines 65-69. Included in the body portion 31 is a seal means 49 for ensuring fluid impermeable connection between it and the casing 21. Col. 4, lines 13-15. The body portion 31 during use is expanded "outwardly into tight frictional and sealing engagement with the casing 21." Col 4, lines 27-30. Applicants respectfully submit that this
10 disclosed arrangement does not teach or suggest claims 21, 34, 44 and 48.

 First, with respect to these claims, Owen '321 does not disclose or suggest a sealing element at least partially embed in the tubular. Rather, the annular body portion 31 merely has a frictional engagement with the tubular. For example, Figure 6 shows what the Examiner considers ribs as flush against the tubular 21. In no aspect does Owen '321 suggest that the
15 annular body portion 31 embed into the tubular 31 to perform either the sealing function or the anchoring function. Accordingly, claims 21, 34, 44 and 48 are allowable over the prior art of record.

 Second, with respect to these claims, Owen '321 does not disclose or suggest a substantially metal-to-metal seal for a tubular in a wellbore. The '321 Patent uses a molded, oil
20 and gas resistant rubber seal ring to provide fluid impermeability. Thus, the Owen '321 Patent teaches the use of an elastomer-to-metal seal. The Owen '321 Patent teaches away from a substantially metal-to-metal seal in the inherently contaminated environment of a wellbore. The Owen '321 Patent states that:

Tests indicate that the annular body portion 31 will form a metal-to-metal inside clean pipe, but the seal means 49 ensures sealing regardless of whether or not the pipe, or casing, is clean. Col. 4, lines 17-20.

Thus, the Owen '321 Patent suggests that expanding one metal tubular against the interior of another metal tubular can provide an adequate seal in a "clean" environment, but in a wellbore environment, with its rock cuttings, drilling mud, metal debris, gas, fluids, and the like, the Owen '321 Patent teaches that an elastomer seal is needed. Therefore, for this additional reason, the Owen '321 Patent neither discloses or suggests claims 21, 34, 44 and 48.

Accordingly, applicant respectfully submits that the remaining claims, namely claims 21, 23, 24, 25, 26, 27, 28-34, 35, 36, 37, 38, 39, 41-51, are in a position for allowance. If it would aid in the disposition of this matter, the Examiner is kindly requested to contact the undersigned. Allowance at an early date is respectfully requested.

Respectfully requested,

Date:

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"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

21. (Twice Amended) An anchoring apparatus for use in a tubular member disposed

5 in a wellbore, the apparatus comprising:

-a top swage member;

-a first cylindrical anchoring member disposed about said top swage member,
said first cylindrical anchoring member being made of a metal harder than the tubular member,
said first anchoring member containing a first plurality of expandable circumferential ribs formed
10 thereon; wherein said first plurality of circumferential ribs [being configured] at least partially
embedding in the tubular member to form a substantially metal-to-metal seal with the tubular
member and being free of an elastomeric seal;

-a setting tool for driving said [top swage member] first cylindrical member into
said top swage and radially deforming said first cylindrical anchoring member so that said first
15 plurality of circumferential ribs are expanded outward; and

-an extension member having a first end attached to said first cylindrical
anchoring member.

24. (Twice Amended) The apparatus of claim 23 further comprising:

20 -a second cylindrical anchoring member attached to a second end of said
extension member, said second cylindrical anchoring member including a second plurality of
circumferential ribs disposed about said second cylindrical anchoring member, said second
plurality of circumferential ribs being configured to provide a substantially metal-to-metal seal
with the tubular member;

25 -a bottom swage member disposed within said second cylindrical anchoring

member;

-and wherein said setting tool is further adapted for driving said bottom swage member into said [bottom swage member] second cylindrical anchoring member and radially deforming said second cylindrical anchoring member so that said second plurality of circumferential ribs are expanded outward.

34. (Twice Amended) An apparatus for sealing and anchoring within a tubular member disposed in a wellbore, the apparatus comprising:

-a top swage member;

-a first cylindrical sleeve being at least partially disposed within said top swage, said first sleeve including a first plurality of circumferential ribs disposed thereon for forming a substantially metal-to-metal seal with the tubular member and a [first] first elastomeric seal spaced apart from said first plurality of circumferential ribs, said ribs at least partially embedding in the tubular member to form said seal;

-a setting tool for driving said top swage member into said [top swage member] first cylindrical sleeve and wherein driving of said top swage member radially deforms said first cylindrical sleeve so that said first cylindrical sleeve expands radially outward.

35. (Twice Amended) The apparatus of claim 34 further comprising:

-a second cylindrical sleeve connected to said first cylindrical sleeve, said second cylindrical sleeve including a second plurality of circumferential ribs disposed thereon for forming a substantially metal-to-metal seal with the tubular member;

-a bottom swage member disposed within said second cylindrical sleeve;

-and wherein said setting tool is further adapted for driving said bottom swage into said [bottom swage member] second cylindrical sleeve such that said swage member radially deforms said second cylindrical sleeve so that said second cylindrical sleeve expands radially outward.

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38. (Once Amended) An apparatus for anchoring a downhole assembly in a tubular member disposed in a wellbore, comprising:

-an anchoring member associated with the downhole assembly, said anchoring member including a substantially circumferential rib element for providing a substantially metal-to-metal seal with the tubular member when radially expanded into engagement with the tubular member such that said rib at least partially embeds in the tubular member.

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44. (Once Amended) An apparatus for anchoring a downhole assembly in a tubular member disposed in a wellbore, comprising:

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[and] an anchoring member for affixing the downhole assembly to the tubular member, said anchoring member having a [substantially elastomer-free] metal rib element for engaging the tubular member when radially expanded, said anchoring member at least partially embedding in the tubular member when expanded to provide a circumferential seal, said anchoring member being substantially free of an elastomeric sealing element.

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48. (Once Amended) An anchoring system for use in a wellbore having a tubular disposed therein, comprising:

(a) a downhole tool for performing a predetermined task in the wellbore;

(b) an anchoring assembly for affixing said tool in the tubular, said anchoring assembly including a sealing member provided with a rib element adapted to form a substantially metal-to-metal seal with the tubular when expanded such that said rib element at least partially embeds in the tubular; and

5 (c) a setting tool for expanding said rib element.